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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,190	06/30/2003	Kazuya Hisada	2003_0886A	8778

513 7590 06/15/2006

WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER
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SCHATZ, CHRISTOPHER

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/608,190

Applicant(s)

HISADA ET AL.

Examiner

Christopher T. Schatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 22-46 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 41 is objected to because of the following informalities: A typographical error is present. It is recommended that applicant place the term “wherein” before the phrase “part of the second radiation curable adhesive.” Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 31 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites the limitation "after said pressing of the first and second substrates together." There is insufficient antecedent basis for this limitation in the claim. Examiner recommends applicant replace the term “pressing” with the term “laminating.”

Claim 42 recites the limitation "removing all or part of the uncured part of the radiation curable adhesive." There is insufficient antecedent basis for this limitation in the claim. Applicant should note the limitation of curing the resin in part does not necessarily mean that part of the resin is uncured. For example, the entire resin could be tackified or B-staged, thus

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leaving no part of the resin uncured and no part of the resin fully cured. Such a method reads on applicant's curing in part limitation.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 22, 23, 25-29, 31-36, 40-43, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Itoigawa et al. '332 (newly cited).

Itoigawa et al. discloses a manufacturing method for an optical data recording medium, said method comprising: preparing a first substrate 51; coating the first substrate with a radiation curable resin 54; curing the radiation curable resin in part (figure 5c, column 3, lines 6-22, column 6, lines 25-54); preparing a second substrate having a groove or lands and pits on one side (column 5, lines 60-65); disposing a resin material to the side of the second substrate having the groove or lands and pits; and laminating the radiation curable adhesive resin of the first substrate and the resin material of the second substrate together after the radiation curable resin is partially cured in said curing in part the radiation curable resin (figures 4A-4E and 5A-5E, column 2, line 51-column 3, line 30, column 5, line 55 – column 7, line 4). Applicant should note that Itoigawa et al.'s disclosure of imparting "tackiness" to the radiation curable resin 54 reads on applicant's "partial curing" step. The cited text of Itoigawa et al. is clear that "tackiness" is

imparted to the radiation curable resin before lamination. The reference fully anticipates claim 22.

As to claim 23, Itoigawa et al. discloses a method wherein said curing in part the radiation curable resin coating the first substrate includes changing the cured state of the radiation curable resin inside and outside of a specified radius of the first substrate (figures 4B, 5C). As to claim 25, Itoigawa et al. discloses a method wherein an adhesive material is used for the resin material. As to claim 26, Itoigawa et al. discloses a method wherein a second radiation curable resin is used for the resin material (column 6, lines 13-24). As to claims 27-29, Itoigawa et al. discloses that the second substrate is prepared in the same manner as the first substrate. Thus, Itoigawa et al. meets the limitations of claims 27-29 for the same reasons the reference meets the limitations of claims 22 and 23. As to claim 31, Itoigawa et al. discloses a method further comprising, after said laminating of the first and second substrates together, a step for curing the radiation curable resin by exposure to radiation (column 6, lines 39-53). As to claim 32, Itoigawa et al. discloses a method wherein at least one of the first and second substrates is substantially transparent to radiation for curing the radiation curable resin (column 5, line 59), As to claims 33, Itoigawa et al. discloses a method wherein a groove or lands and pits are on the surface of the first substrate coated with the radiation curable resin (column 5, line 60 – column 6, line 24, figures 5A-5E). As to claim 34, Itoigawa et al. discloses a method wherein a groove or lands and pits are on the surface of the second substrate to which the resin material is disposed (column 5, line 60 – column 6, line 24, figures 5A-5E). As to claim 35, Itoigawa et al. discloses a method wherein the first substrate has one or more recording layers (column 5, lines 60-65). As to claim 36, Itoigawa et al. discloses a method wherein the second substrate has one or more

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recording layers (column 5, lines 60-65). As to claim 40, Itoigawa et al. discloses a method wherein part of the radiation curable resin coated to the first substrate is exposed to radiation to cure the radiation curable resin in part (column 6, lines 29-36, column 3, lines 7-22).

As to claim 41, Itoigawa et al. discloses a method wherein part of the radiation curable resin coated to the second substrate is exposed to radiation to cure the radiation curable resin in part (column 6, lines 29-36, column 3, lines 7-22). As to claim 42, Itoigawa et al. discloses a method further comprising, after curing said resin in part, removing all or part of the uncured resin 45 (figure 4C). Specifically, applicant should note that resin part 45 is uncured (figures 4C and 4D). Applicant's claim does not explicitly recite what the resin is removed from. Examiner asserts the method disclosed in figures 4E and 5E reads on the term "removing" because the resin is "removed" from the surface of the substrate. Also see column 5, lines 27-30, where the reference recites that the resin is "squeezed out." This reads on the term "removing." As to claims 43 and 45, Itoigawa et al. discloses a method wherein the radiation curable resin is applied to the first and second substrates by a spin coating method (figure 5A, column 6, lines 8-24).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoigawa et al. '332. Itoigawa et al. discloses a method as discussed above. While the reference

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discloses a method of changing the cured state of a radiation curable adhesive inside and outside of a specified radius, the reference is silent as to the exact radius. Examiner asserts, however, that one of ordinary skill in the art examining figures 4B and 5C of Itoigawa et al. would have readily recognized that Itoigawa et al. intended for said radius be at least 90% of the radius of the substrates. Absent any unexpected results from applicant demonstrating criticality, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the cured state of the radiation curable resin on the first and second substrates inside and outside a radius that is 90% or more of each respective substrate.

8. Claims 22-43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoigawa et al. as applied above, and in further view of Ohki et al, '652.

Itoigawa et al. discloses a method as stated above, but the reference is silent as to the removal of the first or second substrate such that grooves are formed. Ohki et al. discloses a method for manufacturing an optical data recording medium wherein a substrate is removed such that a groove or lands and pits corresponding to a groove or lands and pits of another substrate are formed (figure 5D, column 5, lines 37-42). Removal of a substrate layer such that a groove or land and pits are formed is advantageous because, as disclosed by Ohki et al., doing so allows for the formation of an information recording layer. Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the method of Itoigawa et al. such that a substrate is removed to form a groove or lands and pits as taught by Ohki et al. above. Such a modification would facilitate the formation of an information-recording layer on the substrate of Itoigawa et al.

As to claim 38, Ohki et al. discloses a method for manufacturing an optical data recording medium further comprising, after the step for removing the substrate, a step for forming a data recording layer by forming a reflective film 14 over the groove or lands and pits (column 5, lines 42-25). As to claim 39, Ohki et al. discloses a method for manufacturing an optical data recording medium further comprising a step for forming a transparent layer 15 on the data recording layer (column 5, lines 45-46). Examiner acknowledges that the Ohki et al. does not explicitly disclose that said layer 15 is transparent. However, one of ordinary skill in the art would have understood that said layer must be transparent for the information recording layer to be capable of recording information.

9. Claims 44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoigawa et al. as applied above, and in further view of Komaki et al. (US 2001/0053121).

Itoigawa et al. discloses a method as stated above, but the reference is silent as to the step of closing a center hole of a first and second substrate with a capping member.

Komaki et al. discloses a method of manufacturing a optical storage medium wherein a radiation curable resin 51 is coated onto a substrate 100, said method comprising: closing a center hole 101 of the substrate with a capping member 3; coating the radiation curable resin to the substrate by dripping the resin from substantially above the center hole while spinning the first substrate centered on the center hole (figure 3). Closing a center hole of substrate with a capping member and dripping the resin from above the center hole onto said capping member while spinning said substrate facilitates the distribution of the adhesive and produces a uniform coating on said substrate. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Itoigawa et al. by placing a cap over the center hole of each



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substrate and dripping a resin from above the capping member while spinning said substrate to coat the resin. Such a modification would facilitate the distribution of the resin onto the substrate, and produce a uniform coating.

### ***Response to Arguments***

Applicant's arguments with respect to claims 22-46 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Christopher T. Schatz** whose telephone number is **571-272-1456**. The examiner can normally be reached on 8:00-5:30, Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Christopher T. Schatz



**RICHARD CRISPINO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**